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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,156

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Koji Akiyama

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EXAMINER

CERULLO, LILIANA P

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,156	Applicant(s) AKIYAMA ET AL.	
	Examiner LILIANA CERULLO	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/27/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. **Claim 1** is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,338,337. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claim 1 is an obvious variation of the patented claim 1.

For example, the instant claim 1 teaches in the first aging period the scan voltage higher than the sustain voltage, and vice versa in the second aging period; the co-pending claim 1 teaches an equivalent limitation by claiming an alternating voltage between the scan and the sustain. All other limitations are similar as shown by the underlined limitations in the table below.

Instant Claim 1	US 7,338,337 Claim 1
<p><u>A method of aging a plasma display panel having scan electrodes, sustain electrodes, and address electrodes, in which voltage is applied to at least the scan electrodes and the sustain electrodes,</u> the method contains a first aging period in which at least any one of the scan electrodes, the sustain electrodes, and the address electrodes undergo an application of <u>voltage for suppressing a self-erase discharge that follows an aging discharge generated by application of voltage in which the scan electrodes carry a voltage level higher than the sustain electrodes;</u> and a second aging period in which at least any one of the scan electrodes, the sustain electrodes, and the address electrodes undergo an application of voltage for suppressing a self-erase discharge that follows an aging discharge generated by application of voltage in which the <u>sustain electrodes carry a voltage level higher than the scan electrodes.</u></p>	<p><u>A method of aging a plasma display panel containing a scan electrode, a sustain electrode, and a data electrode, the method comprising: when applying a voltage having an alternating voltage component at least between the scan electrode and the sustain electrode to perform an aging discharge, applying an erase discharge-suppressing voltage for suppressing an erase discharge that occurs after the aging discharge to at least one of the scan electrode and the sustain electrode,</u></p> <p>at a predetermined moment in each of a portion of a <u>period of the alternating voltage component of the voltage when the scan electrode has a voltage level that is higher than that of the sustain electrode</u> and a portion of the period of the alternating voltage component of the voltage when the sustain electrode has a voltage level that is higher than that of the scan electrode.</p>

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. in US 2002/0008680 (hereinafter Hashimoto) in view of Sugimoto et al. in US 2004/0070575 (hereinafter Sugimoto).

Hashimoto teaches a method of driving a plasma display panel (para. 2) for stabilizing light emission (para. 299) having scan electrodes (Y of Fig. 7B), sustain electrodes (X of Fig. 7A), and address electrodes (108c of Fig. 32), in which voltage is applied to at least the scan electrodes (Fig. 7A) and the sustain electrodes (Fig. 7B), the method contains a first period (period of Fig. 7A that encompasses the positive and immediate negative assistant pulse applied to the scan electrodes Y) in which the scan electrodes undergo an application of voltage (negative assistant pulse of Fig. 7A) for suppressing a self-erase discharge (as noted in Fig. 7A and explained in para. 181) that follows a discharge (as shown in Fig. 7C by light emission when positive voltage is applied to Y) generated by application of voltage (positive voltage of Y electrode in Fig. 7A) in which the scan electrodes (Y electrodes) carry a voltage level higher than the sustain electrodes (as shown by comparing Figs. 7A and 7B, during the time the scan electrodes Y are applied with a high voltage, the sustain electrodes have a zero voltage); and a second period (period of Fig. 7B that encompasses the positive and

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immediate negative assistant pulse applied to the sustain electrodes X) in which the sustain electrodes (negative assistant pulse of Fig. 7B undergo an application of voltage (negative assistant pulse of Fig. 7B) for suppressing a self-erase discharge (as noted in Fig. 7A and explained in para. 181) that follows a discharge (as shown in Fig. 7C by light emission when positive voltage is applied to X) generated by application of voltage (positive voltage of X electrode in Fig. 7B) in which the sustain electrodes (X electrodes) carry a voltage level higher than the scan electrodes (as shown by comparing Figs. 7B and 7A, during the time the sustain electrodes X are applied with a high voltage, the scan electrodes have a zero voltage).

Hashimoto does not teach the above driving method for light emission stabilization to be applied during aging of a plasma display.

However, Sugimoto teaches that an aging process is to have the whole area of a PDP emit light and keep doing it till the light emission is stabilized (Sugimoto, para. 208), therefore teaching driving the display device during the aging process to emit light (or an image).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Hashimoto's driving method for stabilizing light emission during the aging period, as driving a display is part of the aging process (as taught by Sugimoto), and the objective of the aging process is to stabilize the light emission, and the use of Hashimoto's driving method in the aging of a plasma display will provide the benefit of improving light-emitting efficiency (as taught by Hashimoto in para. 81) by intensifying

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the second discharge using an assistant pulse to compensate for the self-erase discharge.

4. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. in US 2002/0008680 in view of Sugimoto et al. in US 2004/0070575 as applied to claim 1, in further view of Yoo in US 7,713,374.

Hashimoto in view of Sugimoto do not teach the second aging period lasting shorter than the first aging period. However, Yoo teaches a PDP apparatus where the scan and sustain electrodes have different protrusion sizes (Yoo, col. 4 lines 40-43 referring to Fig. 4), and as a consequence, the period during which a voltage is applied to the scan electrode (Yoo, Fig. 4, T2) is shorter than the period during which a voltage is applied to the sustain electrode (Yoo, Fig. 4, T1) during a sustain period (Yoo, Fig. 4, unit pulse).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to shorten Hashimoto in view of Sugimoto's first aging period during which a voltage is applied to the scan electrode (as explained for claim 1), to be shorter than the second aging period during which a voltage is applied to the sustain electrode (as explained for claim 1), in order to use Hashimoto in view of Sugimoto's aging method in Yoo's PDP apparatus with different electrodes protrusion sizes, and thus, obtain the added benefit of Yoo's apparatus of effectively generating an address discharge because of the large size of the protrusion of the scan electrode (Yoo, col. 5 lines 56-63).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LILIANA CERULLO whose telephone number is (571)270-5882. The examiner can normally be reached on Monday to Thursday 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LC

/Amr Awad/
Supervisory Patent Examiner, Art Unit 2629